

1 I know what a wiki is and I use one with my students.

Yes

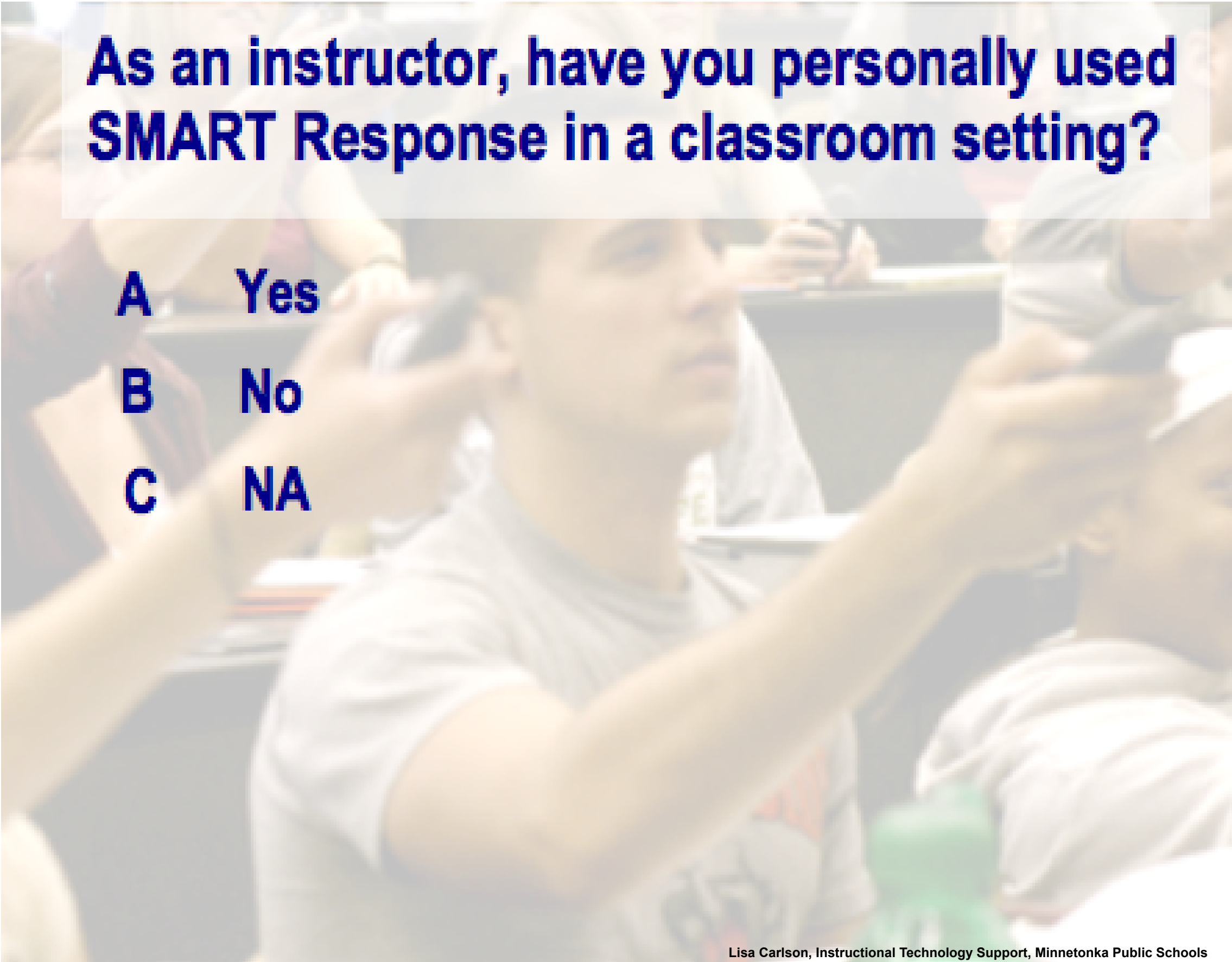
No





What age level(s) do you work with?

- A Elementary (K-5)
- B Middle Level (6-8)
- C High School (9-12)
- D Other

A background image showing a classroom of students. In the foreground, a male student is looking at a tablet. Other students in the background are also using mobile devices. The image is slightly blurred to make the text overlay stand out.

**As an instructor, have you personally used
SMART Response in a classroom setting?**






A Yes

B No

C NA

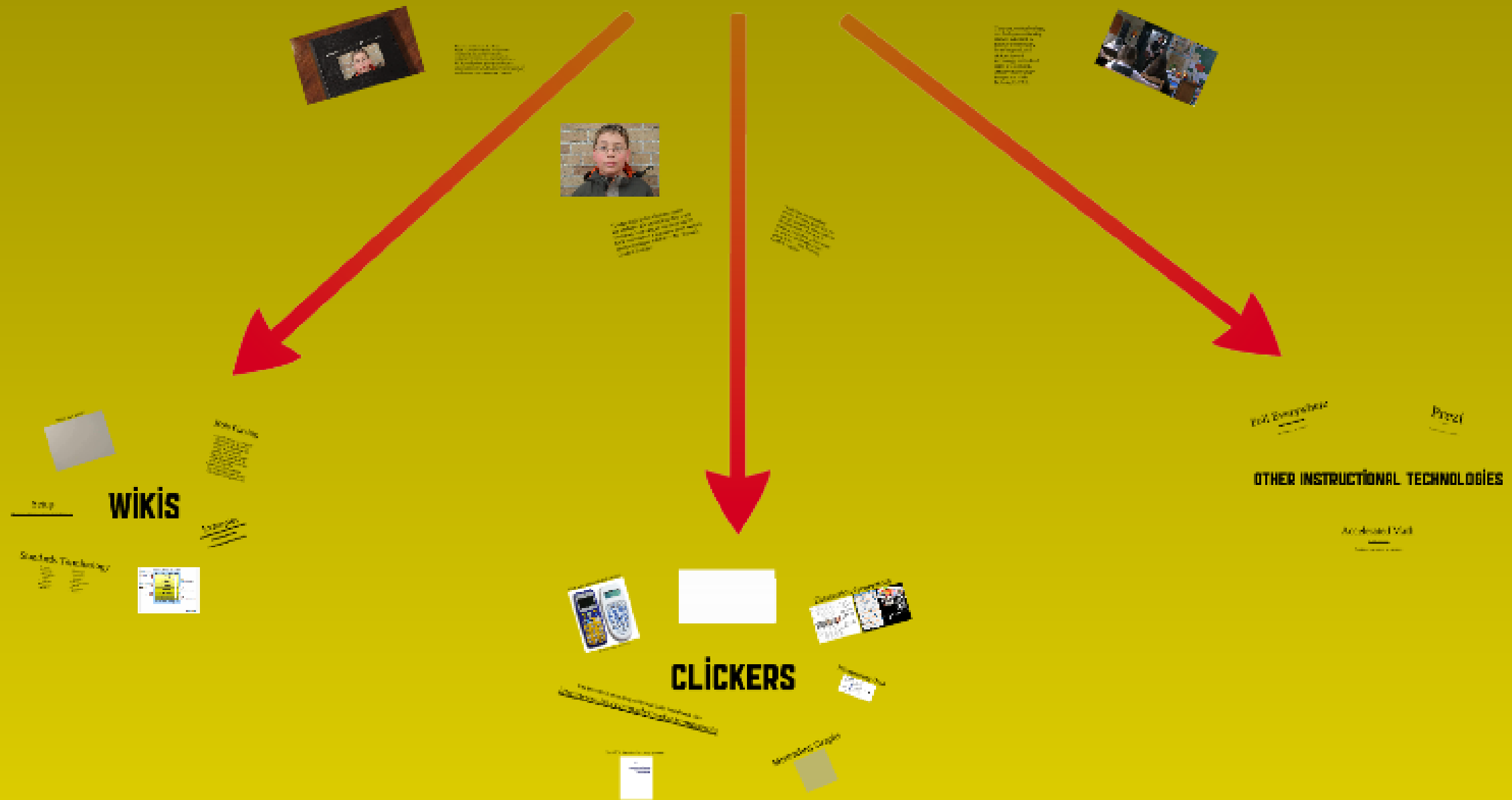
Classroom Uses



- A  Replace Paper/Pencil Tests
- B  Checking for understanding
 - during or after instruction
- C  Review
- D  Homework Check
- E  Data Collection

WIKIS, CLICKERS AND STANDARDS...OH MY!

STANDARDS:





[Tell a friend](#) | [User guides](#) | [Help](#)

Username

Password

Sign in

☐ Remember me

[Create an account](#)

Practice

Reports

Awards



State Standards

Membership

Minnesota

[Pre-K](#) | [Kindergarten](#) | [First grade](#) | [Second grade](#) | [Third grade](#) | [Fourth grade](#) | [Fifth grade](#) | [Sixth grade](#) | **Info**



WIKIS, CLICKERS AND STANDARDS...OH MY!

STANDARDS



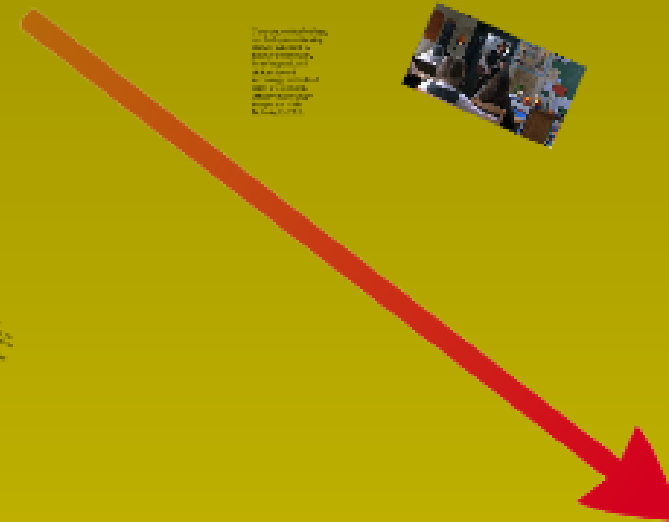
One of the most common ways to use standards is to create a list of standards that are relevant to the current unit or lesson. This can be done in a variety of ways, including using a spreadsheet or a word processor. The list can then be used to track student progress and to provide feedback.



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OTHER INSTRUCTIONAL TECHNOLOGIES

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Name _____

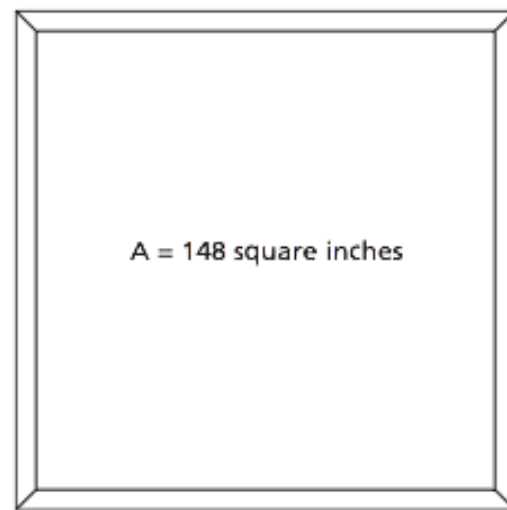
Minnesota Comprehensive Assessments-Series II

Mathematics Item Sampler
Grade 8



Minnesota
Department
of Education

Use the figure below to answer question 4.



4. The area of a square mirror is 148 square inches. Which integer is closest to the length of the pane of glass in inches?

A. 12
B. 13
C. 37
D. 74

3204160

5. Which of the following is equivalent to $\frac{4^5}{4^3}$?

A. 1^2
B. 1^8
C. 4^2
D. 4^8

3204160

6. Millie was told that 16 is a perfect square of a number. Which of these could Millie use to find what number squared equals 16?

A. 16^2
B. $16 \div 2$
C. $\sqrt{16}$
D. $16 \cdot 2$

3204160

Use the expression below to answer question 7.

$$9 + (12 - 7) + 2 \cdot 4$$

7. What is the value of the expression above?

3204160

Please write your response to question 45 on page 6 of your answer book.

45. The Eaton family rented a car for a weekend trip. The rate to rent the car was \$30 per day plus \$0.25 for each mile driven.

Part A What is the cost of renting a car for 4 days and driving a total of 200 miles? Show or explain how you got your answer.

Part B Write an expression to show the cost of renting a car for d days and driving m miles.

Part C Show 2 different solutions that allow the Eatons to rent the car and not spend more than \$150. For both solutions, explain the number of days they rent the car and the number of miles they drive.

X1000460

Be sure to show all your work in your answer book.

3

MCA-II Item Sampler

Rubric, Sample Responses and Answer Annotations

Grade 8 Mathematics

Rubric for Item 45 on page 31:

SCORE	DESCRIPTION
4	<ul style="list-style-type: none"> • Correct cost with adequate support in part A • Correct expression in part B • Two correct solutions with adequate support in part C
3	<p>Correct part A with adequate support AND correct part B AND one correct solution in part C with adequate support for both</p> <p style="text-align: center;">OR</p> <p>Correct part A with adequate support AND incorrect part B AND two correct solutions in part C with adequate support for each</p> <p style="text-align: center;">OR</p> <p>Incorrect part A with adequate support AND correct part B AND two correct solutions in part C with adequate support for each</p> <p style="text-align: center;">OR</p> <p>Correct part A without adequate support AND correct part B AND two correct solutions in part C with adequate support for each</p>
2	<p>All three parts correct without any adequate support</p> <p style="text-align: center;">OR</p> <p>Correct part A with adequate support AND correct part B AND incorrect part C without adequate support</p> <p style="text-align: center;">OR</p> <p>Incorrect parts A and B AND two correct solutions in part C with adequate support for one or both</p> <p style="text-align: center;">OR</p> <p>Correct part A or part B, but not both, AND one correct solution in part C</p>
1	<p>One of the three parts is correct with or without adequate support.</p> <p style="text-align: center;">OR</p> <p>Some work relevant to the problem.</p>
0	Response is incorrect or irrelevant.
Blank	No attempt made to answer question.

Sample Response:

A. $4(30) + 200(0.25)$
 $120 + 50$
 $\$170$

B. $4d + 0.25m$

C. Answers will vary. Students will describe two ways to rent the car without spending more than \$150. For both solutions the number of days rented and the number of miles driven must be given. Ex: $3(30) + 200(0.25)$ Ex: $4(30) + 120(0.25)$

$$\begin{array}{l} 90 + 50 \\ \$140 \end{array}$$

$$\begin{array}{l} 120 + 30 \\ \$150 \end{array}$$

5 Answer?

45. **A.**

30	200
x 4	x .25
120	1000
	4000
	50.00

\$120.00
50.00
\$170.00

B. $4d + 200m = \$170.00$
 $(4 \times d) + (200 \times m) = \170.00
 $d = \text{days}$
 $m = \text{miles}$

C.

150	30
x .25	x 3
750	90
3000	
37.50	
+90.00	
\$127.50	

3 days of 150 miles!

WIKIS, CLICKERS AND STANDARDS...OH MY!

STANDARDS



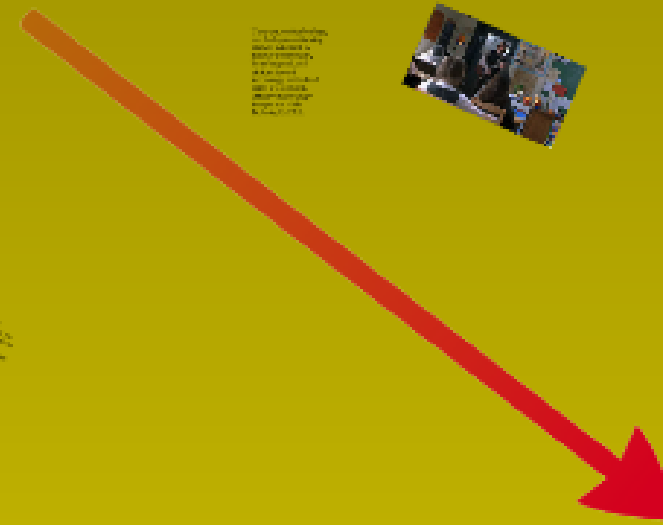
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Bloom's Revised Taxonomy

Generating new ideas,
products, or ways of
viewing things



Breaking information
into parts to explore
understandings and
relationships



Explaining ideas
or content



Higher Order Thinking Skills

Creating

Evaluating

Analysing

Applying

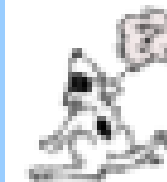
Understanding

Remembering

Lower Order Thinking Skills



Justifying a decision
or course of action



Using information in
another similar situation



Recalling information

WIKIS, CLICKERS AND STANDARDS...OH MY!

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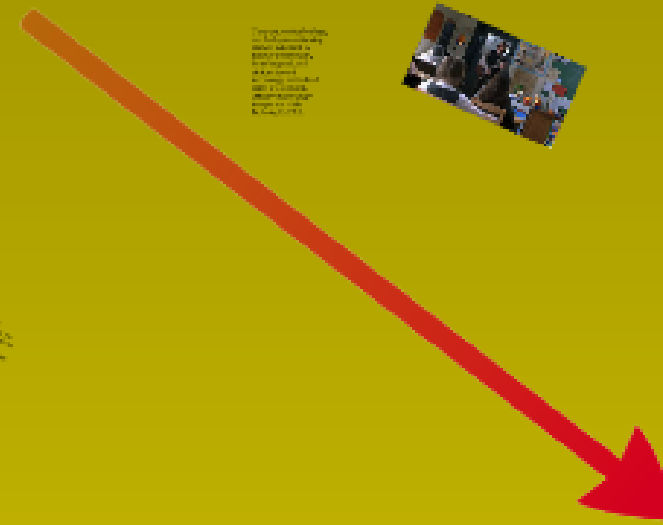
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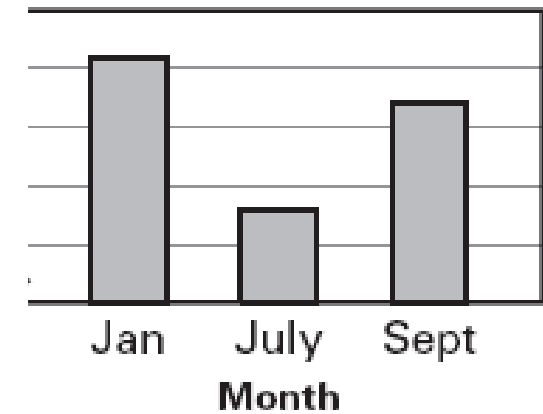
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5. The bar graph at the right shows the average precipitation in inches in London, England for three different months. Without looking at the scale, compare the amount of rainfall in January and July.



Average Precipitation for London, England



Caffeine source	Serving size	Milligrams of caffeine
Coffee		
Decaffeinated coffee	8 oz.	3 mg
Instant coffee	8 oz.	75 mg
Brewed coffee	8 oz.	85 mg
Soft drinks		
7Up	8 oz.	0 mg
Mug Root Beer	8 oz.	0 mg
Coca-Cola	8 oz.	23 mg
Pepsi	8 oz.	25 mg
Dr. Pepper	8 oz.	28 mg
Diet Coke	8 oz.	31 mg
Tab	8 oz.	31 mg
Mountain Dew	8 oz.	37 mg
Jolt cola	8 oz.	48 mg
Tea		
Herbal tea	8 oz.	0 mg
Green tea	8 oz.	30 mg
Iced tea	8 oz.	40 mg
Hot tea	8 oz.	60 mg
Chocolate		
Chocolate milk	8 oz.	2 mg
Milk chocolate bar	1 oz.	6 mg
Unsweetened baking chocolate	1 oz.	47 mg
Over-the-counter medications		
Excedrin	1 pill	65 mg
NoDoz, regular strength	1 pill	100 mg
NoDoz, maximum strength	1 pill	200 mg
Vivarin	1 pill	200 mg



During an average day, approximately how many milligrams of caffeine do you consume?

Caffeine source	Serving size	Milligrams of caffeine
Coffee		
Decaffeinated coffee	8 oz.	3 mg
Instant coffee	8 oz.	75 mg
Brewed coffee	8 oz.	85 mg
Soft drinks		
7Up	8 oz.	0 mg
Mug Root Beer	8 oz.	0 mg
Coca-Cola	8 oz.	23 mg
Pepsi	8 oz.	25 mg
Dr. Pepper	8 oz.	28 mg
Diet Coke	8 oz.	31 mg
Tab	8 oz.	31 mg
Mountain Dew	8 oz.	37 mg
Jolt cola	8 oz.	48 mg
Tea		
Herbal tea	8 oz.	0 mg
Green tea	8 oz.	30 mg
Iced tea	8 oz.	40 mg
Hot tea	8 oz.	60 mg
Chocolate		
Chocolate milk	8 oz.	2 mg
Milk chocolate bar	1 oz.	6 mg
Unsweetened baking chocolate	1 oz.	47 mg
Over-the-counter medications		
Excedrin	1 pill	65 mg
NoDoz, regular strength	1 pill	100 mg
NoDoz, maximum strength	1 pill	200 mg
Vivarin	1 pill	200 mg



How close is your caffeine consumption to the moderate level of 200 mg?

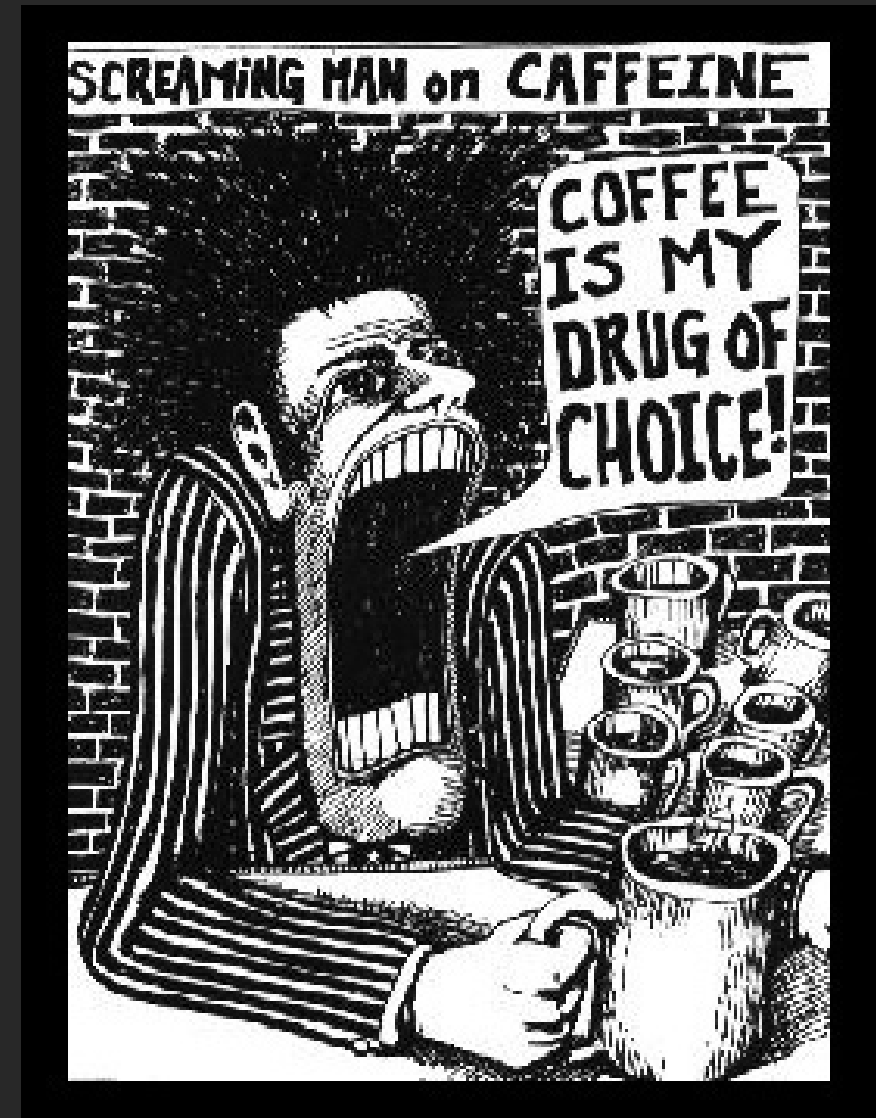
"For most people, moderate doses of caffeine — around 200 milligrams (mg), or about two to four cups of brewed coffee a day — aren't harmful. But some circumstances may warrant limiting or even ending your caffeine routine."

Caffeine: How much is too much?

<http://www.mayoclinic.com/health/caffeine/nu00600>

6 Do you know your caffeine consumption?

- A 50-100 Over
- B 6-49 Over
- C +5 to -5 Really Close!
- D 6-49 Under
- E 50-100 Under



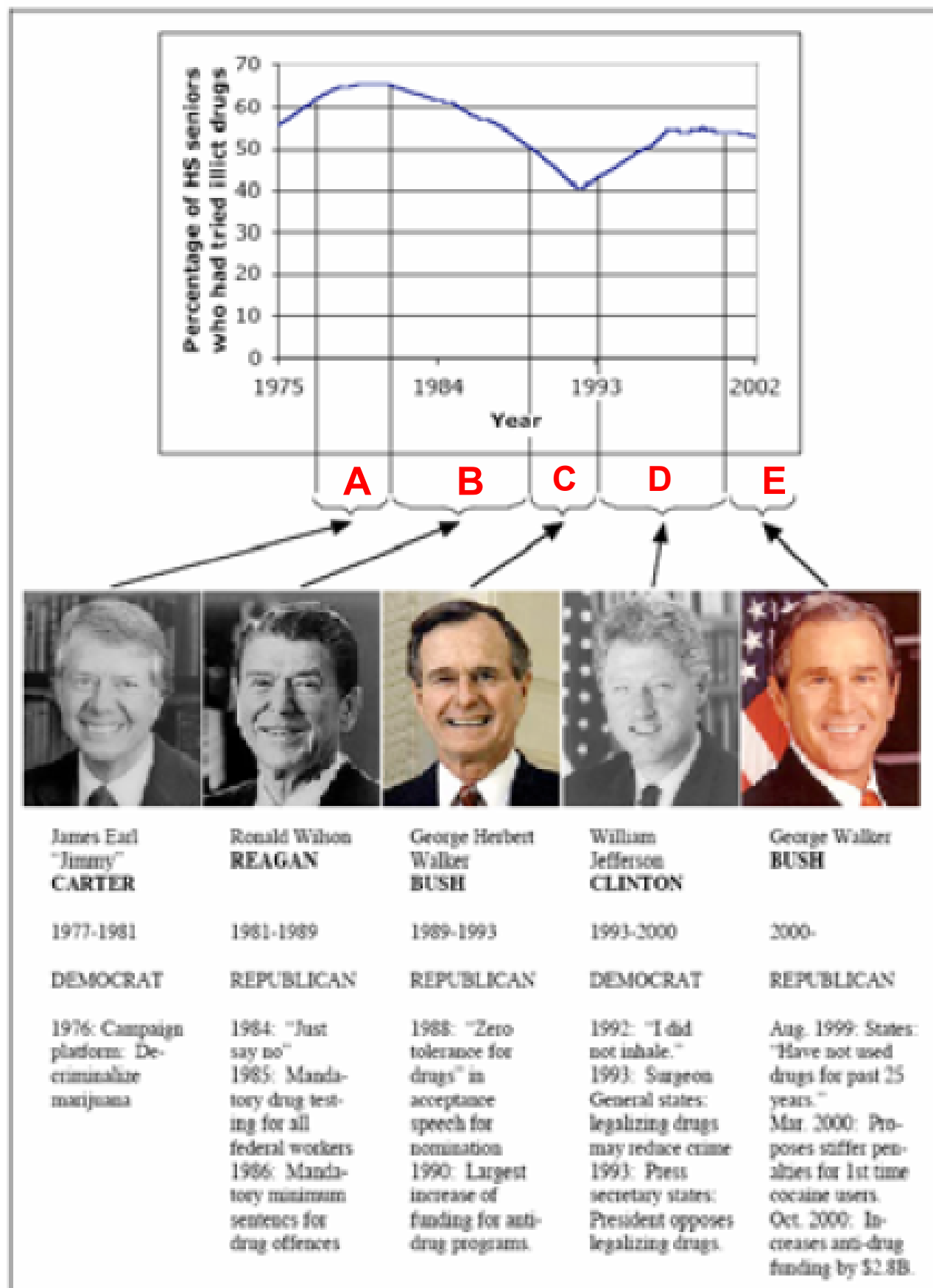
Discussion Generator

Give Every Student a Voice

Eases anxiety for students when responding

Avoid risk without ridicule

Student engagement



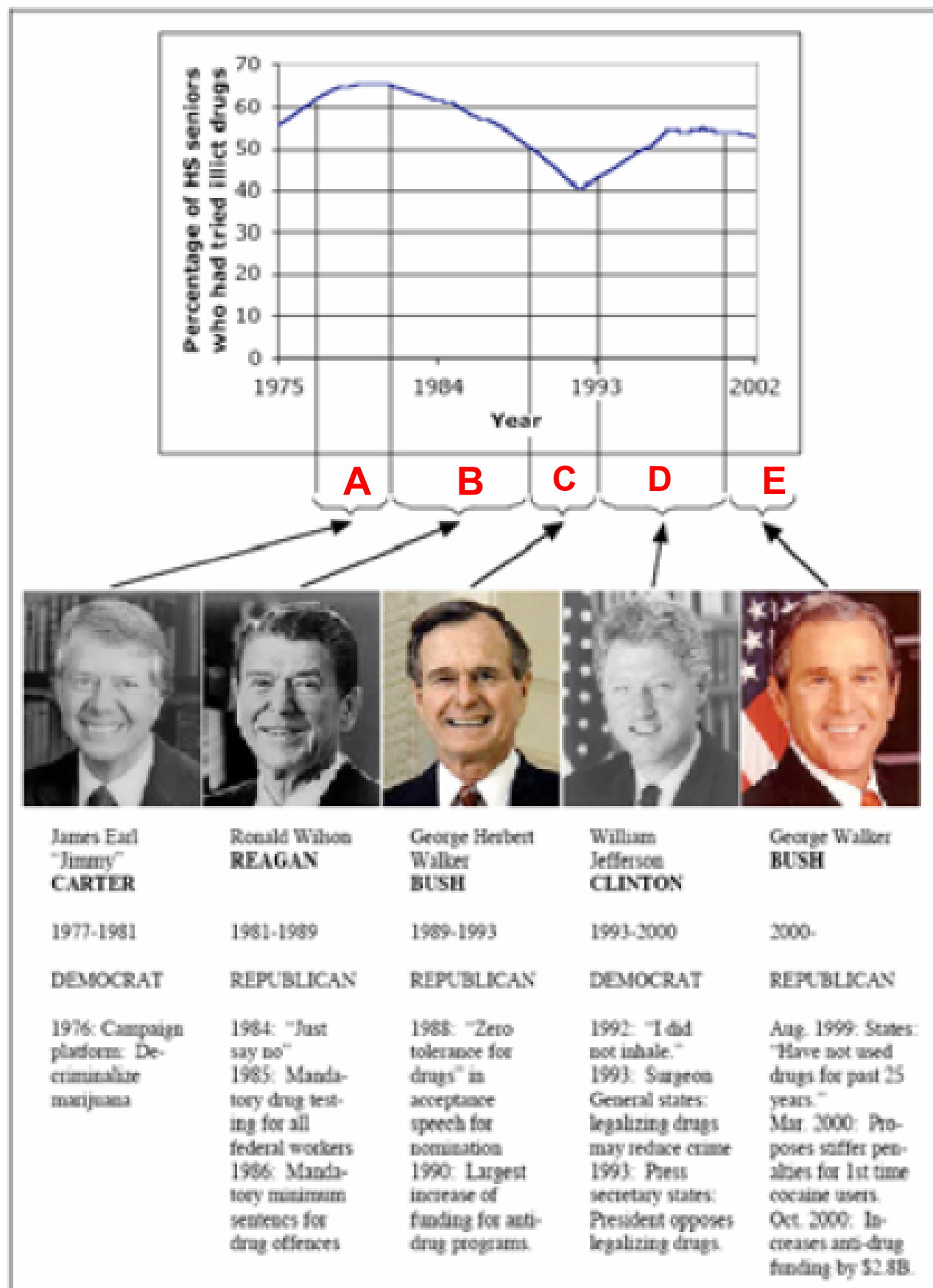
From the graph:

When is the graph increasing?

When is the graph decreasing?

Is there a time when the graph shows no change?

What factors seem to influence teenage drug use?



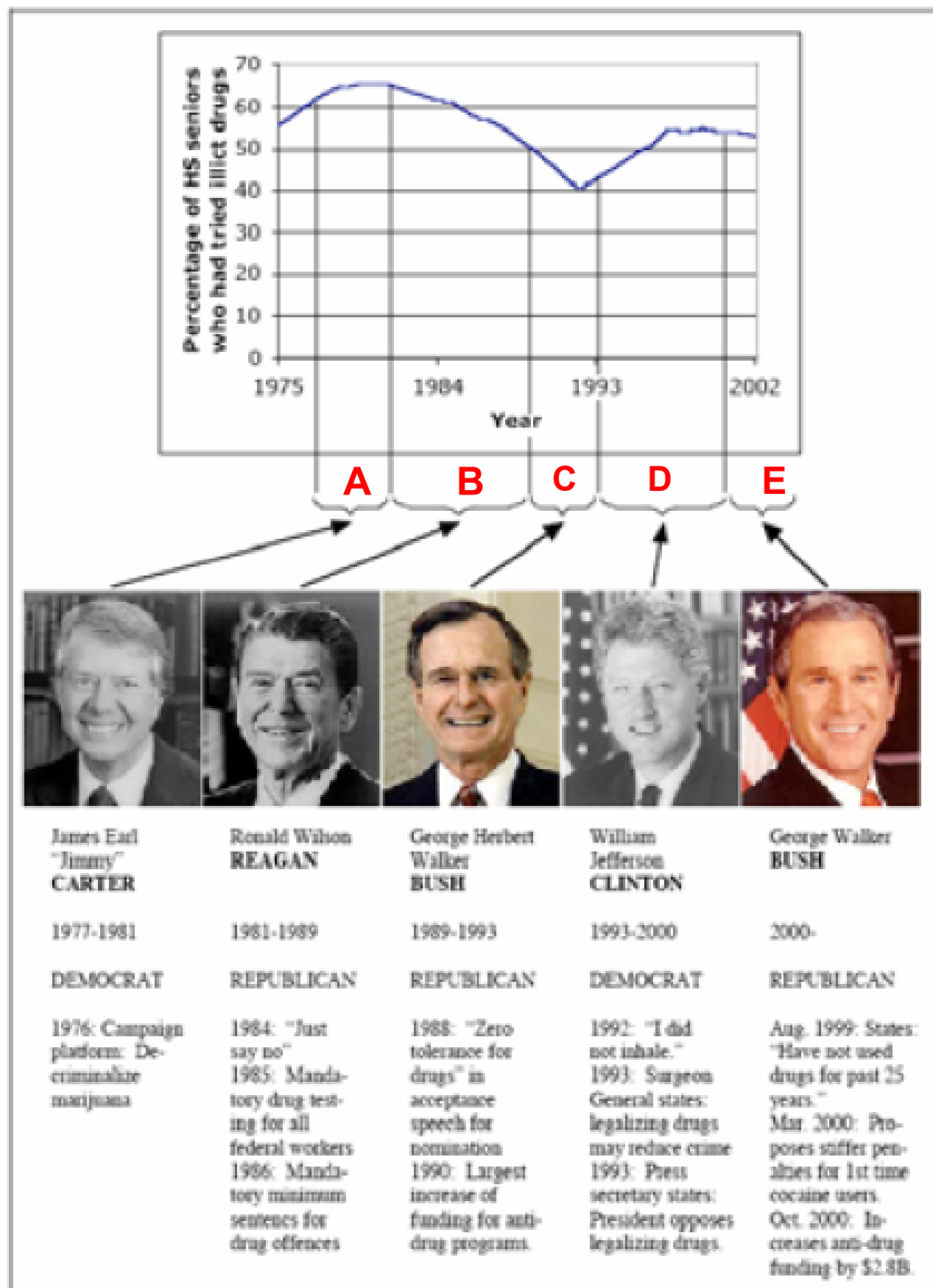
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What factors seem to influence teenage drug use?

Schools have often been uncertain about the outcomes they want to achieve with technology. Is the goal to increase test scores, prepare students for jobs, increase student access to information, or prepare critical thinkers? (Heinecke et al. 1999).

- A Increase test scores
- B Prepare students for jobs
- C Increase student test scores
- D Prepare critical thinkers

Discuss

We all agree that technology motivates students.

So the question is...

Does the use of technology in the math classroom lead to increased student achievement?

2003–04 Cumulative Grade Point Averages by Grade

Grade	Program Enrollment	
	Laptop	Non-Laptop
6	3.50	3.13
7	3.28	2.94
8	3.23	3.07

Gluek & Demirtas 2005

2003–04 End-of-Course Grades by Subject, Grade, and Program

What factors most affect these results?

- A technology
- B teachers
- C motivation
- D leadership

End-of-Course Letter Grade	Grade 6		Grade 7		Grade 8	
	Laptop	Non-Laptop	Laptop	Non-Laptop	Laptop	Non-Laptop
English Language Arts						
A	50%	38%	39%	23%	36%	39%
B	42%	32%	45%	33%	54%	40%
C	7%	21%	11%	28%	10%	17%
D	1%	6%	3%	9%	0%	3%
F	0%	3%	2%	7%	0%	1%
Mathematics						
A	40%	33%	37%	30%	24%	23%
B	41%	31%	38%	32%	36%	29%
C	14%	20%	18%	21%	20%	28%
D	2%	6%	5%	8%	20%	11%
F	3%	10%	2%	9%	0%	9%

Gluek & Demirtas 2005

Results indicate that there is a substantial difference between laptop and non-laptop students in terms of their end-of-course grades. A notably higher percentage of laptop students attained A grades and a significantly lower percentage attained F grades in their English and mathematics courses. The largest difference between percent of laptop and non-laptop students obtaining A grades was in seventh grade English and the smallest difference was in eighth grade mathematics. One exception to this trend was that a slightly higher percentage of non-laptop students obtained A grades in eighth grade English; however, results favored laptop students (90%) versus non-laptop students (79%) in terms of the percentage of students attaining a B or a higher for eighth grade English.

Gluek & Demirtas 2005

Which classroom applications do you plan on using?

- A Replace paper and pencil tests**
- B Checking for understanding**
- C Review**
- D Homework Check**
- E Data Collection**
- F Survey**
- G Discussion Generator**
- H Peer Instruction**
- I Grouping**
- J All of the above**